

For example, claim 1 recites a method for time profiling multiple threads of execution corresponding to a program. The method interrupts execution of all of the threads and determines whether register data corresponding to a selected thread has changed. Furthermore, the method provides an indication of the change for the selected thread. Thus, claim 1 determines whether register data corresponding to a selected thread has changed.

*Richardson*, however, does not teach determining whether register data corresponding to a selected thread has changed. *Richardson* makes no determination of a change in anything. The Office Action cites the “placement data” (col. 4, l. 42) in regard to the “register data” of claim 1, but there is no determination in *Richardson* of whether the placement data has changed. The placement data simply “lists virtual address regions accessed by respective threads,” (col. 5, ll. 47-48) and there is never a determination of whether it has changed (see also col. 6, ll. 62-67). Because *Richardson* fails to teach determining whether register data corresponding to a selected thread has changed, claim 1 is patentable and claims 2-4 dependent therefrom are also patentable. Claims 9-12, 17-20, and 25 are similarly patentable because they contain the same recitation.

Because the remaining pending claims 5-8, 13-16, and 21-24 contain a similar recitation, they are also patentable for at least these reasons. For example, claim 5-7, 13-15, and 21-23 recite “comparing the computed value with register information stored following a previous suspension of the multithreaded program.” The Office Action cites the “histogram generator” of *Richardson* (col. 4, ll. 52-54) regarding this limitation. The histogram generator walks “through the assembly code . . . until a valid load or store instruction is reached” (col. 4., ll. 52-54), but performs no comparing, and thus does not perform “comparing the computed value with register

information stored following a previous suspension of the multithreaded program,” as recited in claim 5.

Likewise, claims 8, 16, and 24 recite “determining whether stored information corresponding to processor registers for each thread indicates that the thread is running,” and the Office Action cites the “program counter” (col. 6, ll. 21-24) in reference to this limitation. The program counter, however, “points to an assembly code instruction for the thread being run at the time of interrupt,” but does not determine whether registers indicate that a thread is running (col. 6, ll. 19-21). Thus, claims 5-8, 13-16, and 21-24 are also patentable over *Richardson*.

Applicant submits that the pending claims are patentable over the cited reference, and thus Applicant respectfully requests the timely issuance of a Notice of Allowance. Additionally, Applicant also respectfully requests that the Examiner calls Applicant’s attorney if he believes it would expedite prosecution.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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